National Institute of Environmental Health Sciences

The impact of winter cold weather on acute myocardial infarctions in Portugal

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Year: 2013
Journal: Environmental Pollution (Barking, Essex : 1987). 183: 14-18

Abstract:

Mortality due to cardiovascular diseases shows a seasonal trend that can be associated with cold weather. Portugal is the European country with the highest excess winter mortality, but nevertheless, the relationship between cold weather and health is yet to be assessed. The main aim of this study is to identify the contribution of cold weather to cardiovascular diseases within Portugal. Poisson regression analysis based on generalized additive models was applied to estimate the influence of a human-biometeorological index (PET) on daily hospitalizations for myocardial infarction. The main results revealed a negative effect of cold weather on acute myocardial infarctions in Portugal. For every degree fall in PET during winter, there was an increase of up to 2.2% (95% CI Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 0.9%; 3.3%) in daily hospital admissions. This paper shows the need for public policies that will help minimize or, indeed, prevent exposure to cold.

Source: http://dx.doi.org/10.1016/j.envpol.2013.01.037

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Policymaker

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Portugal

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Cardiovascular Effect

Cardiovascular Effect: Heart Attack

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Elderly

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content